We claim:

A process for the acylation of an aromatic compound(I), with or without comprising nitro group(s), by an acylating agent(II), comprising at least one carbonyl group, using a reusable solid catalyst, which comprises,

i) reacting under stirring a crystalline micro– or meso– porous inorganic solid comprising surface hydroxyl groups with at least one anhydrous metal halide selected from anhydrous halides of Al, Ga, In, Tl and Fe, dissolved in non–aqueous solvent, with the metal halide to the inorganic solid weight ratio in the range from 0.01 to 1.0 in the presence or absence of a flowing inert gas at a temperature in the range from 20 °C to 200 °C, such that the amount of metal halide(s) consumed in the reaction is at least 0.1 mmol per gram of the inorganic solid and also the amount of hydrogen halide evolved in the reaction is at least 0.1 mole per mole of the metal halide(s) consumed in the reaction;

ii) separating the resulting solid from the reaction mixture obtained from step(i), washing by the non–aqueous solvent and drying under moisture–free atmosphere;

iii) contacting in a stirred batch reactor a liquid reaction mixture comprising aromatic compound(I) and acylating agent(II) with the inorganic solid obtained from step(ii), designated as solid catalysts(III) in catalytic amounts at the following reaction conditions: the weight ratio of solid catalyst(III) to acylating agent(II) in the range from 0.005 to 1.0, the mole ratio of acylating agent(II) to aromatic compound(I) in the range from 0.01 to 10,

the temperature in the range from 50 °C to 300 °C and the pressure at least atmospheric one;

iv) separating the solid catalyst(III) and isolating the product(s), and the reactants, aromatic compound(I) and acylating agent(II) from the reaction mixture; and

v) recycling the solid catalysts(III) for its reuse to step(iii).

2. A process as claimed in claim 1 wherein, the crystalline solid used in step(i) is Si–MCM–41 or crystalline cationic clay.

3. A process as claimed in claims 1 and 2 wherein, the cationic clay is Montmorillonite.

4. A process as claimed in claims 1 to 3 wherein, the metal halide used in step(i) is anhydrous $AlCl_3$ and/or $GaCl_3$.

5. A process as claimed in claims 1 to 4 wherein, the non–aqueous solvent used in step(i) is carbon tetrachloride, dichloroethane or acetonitrile.

6. A process as claimed in claims 1 to 5 wherein, the reaction in step(i) is carried out in a flow of inert gas selected from N_2 , He or Ar.

7. A process as claimed in claims 1 to 6 wherein, the amount of hydrogen halide evolved in the reaction in step(i) is between 0.5 to 3 mol per mole of the metal halide consumed in the reaction.

8. A process as claimed in claims 1 to 7 wherein, the amount of metal halide consumed in the reaction in step(i) is between 0.5 and 5.0 mmol per gram of the inorganic solid.

9. A process as claimed in claims 1 to 8 wherein, aromatic compound(I) used in step(iii) is nitrobenzene, dinitrobenzenes, nitro naphthalenes, substituted nitrobenzenes and substituted nitro naphthalenes.

10. A process as claimed in claims 1 to 9 wherein, the acylating agent(II) used in step(iii) is benzoyl chloride, benzoyl bromide, acetyl chloride, acetyl bromide, substituted benzoyl chloride or substituted acetyl chloride.

11. A process as claimed in claims 1 to 10 wherein, the weight ratio of solid catalyst(III) to acylating agent(II) is between 0.05 and 0.5.

12. A process as claimed in claims 1 to 11 wherein, the mole ratio of acylating agent(II) to aromatic compound(I) is between 0.05 and 1.0.

13. A process as claimed in claims 1 to 12 wherein, the temperature in step(iii) is between 50 °C and 250 °C.

14. A process as claimed in claims 1 to 13 wherein, the pressure in step(iii) is between 1 atm and 10 atm.

15. A process for the preparation of an aromatic compound comprising at least one nitro group and at least one acyl group, substantially as herein described with reference to the examples